UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
WASHINGTON, DC 20591

In the matter of the petition of

Drone Seed, Co., for an exemption from §§ 107.36; 137.19(c), (d), (e)(2)(ii), (iii), and (v); 137.31(a) and (b); 137.33(a) and (b); 137.41(c); and 137.42 of Title 14 of the Code of Federal Regulations; and § 175.9(b)(1) of Title 49 of the Code of Federal Regulations.

Exemption No. 17261
Regulatory Docket No. FAA-2016-9247

GRANT OF EXEMPTION

By letter dated September 27, 2016, Mr. James E. Mackler, Member, Frost Brown Todd Attorneys LLC, 150 3rd Avenue South, Suite 1900, Nashville, TN 37201, petitioned the Federal Aviation Administration (FAA) on behalf of Drone Seed, Co. for an exemption from §§ 107.36; 137.19(c), (d), (e)(2)(ii), (iii), and (v); 137.31(a) and (b); 137.33(a) and (b); 137.41(c); and 137.42 of Title 14 of the Code of Federal Regulations (14 CFR); and § 175.9(b)(1) of Title 49 of the Code of Federal Regulations (49 CFR). Drone Seed, Co. petitioned for an exemption for the purpose of operating a small unmanned aircraft system (UAS) for commercial agricultural-related services. The relief requested is similar to that granted in Exemption No. 11448 to Yamaha Motor Corporation, USA. Unlike Yamaha, however, Drone Seed intends to operate a small UAS below the 55 pound maximum weight limit of 14 CFR part 107.

In accordance with the FAA Modernization and Reform Act of 2012 (FMRA), Public Law 112-95 (Feb. 14, 2012), the Secretary of Transportation determined that certain unmanned aircraft systems weighing less than 55 pounds may operate safely in the national airspace system. The Secretary established requirements for the safe operation of such aircraft systems in the National Airspace System in 14 CFR part 107, *Operation and Certification of Small Unmanned Aircraft Systems*, which took effect August 29, 2016. 81 FR 42064.

Excluding the ground control station, the DS-8 and DS-9 small UAS, and the equipment necessary for its operation, weighs approximately 19 pounds and it is capable of carrying a 24 pound payload. The DS-8 and DS-9 small UAS are defined by statute as small UAS[1] weighing less than 55 pounds, and will be operated under 14 CFR part 107.

This exemption grants authorization for use of petitioner's small UAS with a maximum gross takeoff weight of less than 55 pounds for agricultural aircraft operations in accordance with 14 CFR part 137, *Agricultural Aircraft Operations*. The FAA grants relief from certain sections of 14 CFR part 137 that are not applicable to small UAS. Pursuant to § 137.11, the petitioner must make application for and be issued an agricultural aircraft operator certificate under part 137 before conducting any aerial application operations.

The petitioner requests relief from the following regulations:

Section 107.36 states that a small unmanned aircraft may not carry hazardous material. For purposes of this section, the term hazardous material is defined in 49 CFR § 171.8, which provides as follows:

> Hazardous material means a substance or material that the Secretary of Transportation has determined is capable of posing an unreasonable risk to health, safety, and property when transported in commerce, and has designated as hazardous under section 5103 of Federal hazardous materials transportation law (49 U.S.C. 5103). The term includes hazardous substances, hazardous wastes, marine pollutants, elevated temperature materials, materials designated as hazardous in the Hazardous Materials Table (see 49 CFR 172.101), and materials that meet the defining criteria for hazard classes and divisions in part 173 of this subchapter.

Section 137.19(c) states that; *Commercial operator—pilots. The applicant must have available the services of at least one person who holds a current U.S. commercial or airline transport pilot certificate and who is properly rated for the aircraft to be used. The applicant himself may be the person available.*

Section 137.19(d) states that; *Aircraft. The applicant must have at least one certificated and airworthy aircraft, equipped for agricultural operation.*

Section 137.19(e)(2)(ii), (iii) , and (v) states that; *(e) Knowledge and skill tests. The applicant must show, or have the person who is designated as the chief supervisor of agricultural aircraft operations for him show, that he has satisfactory knowledge and skill regarding agricultural aircraft operations, as described in paragraphs (e) (1) and (2) of this section.*

[1] Pub. L. 112-95 § 331(6).

(2) The test of skill consists of the following maneuvers that must be shown in any of the aircraft specified in paragraph (d) of this section, and at that aircraft's maximum certificated take-off weight, or the maximum weight established for the special purpose load, whichever is greater:

(ii) Approaches to the working area.

(iii) Flare-outs.

(v) Pullups and turnarounds

Section 137.31(a) and (b) states that; *no person may operate an aircraft unless that aircraft—*

(a) Meets the requirements of §137.19(d)

(b) Is equipped with a suitable and properly installed shoulder harness for use by each pilot

Section 137.33(a) and (b) states that:

(a) No person may operate an aircraft unless a facsimile of the agricultural aircraft operator certificate, under which the operation is conducted, is carried on that aircraft. The facsimile shall be presented for inspection upon the request of the Administrator or any Federal, State, or local law enforcement officer.

(b) Notwithstanding part 91 of this chapter, the registration and airworthiness certificates issued for the aircraft need not be carried in the aircraft. However, when those certificates are not carried in the aircraft they shall be kept available for inspection at the base from which the dispensing operation is conducted.

Section 137.41(c) states that; *Pilot in command. No person may act as pilot in command of an aircraft unless he holds a pilot certificate and rating prescribed by §137.19 (b) or (c), as appropriate to the type of operation conducted. In addition, he must demonstrate to the holder of the Agricultural Aircraft Operator Certificate conducting the operation that he has met the knowledge and skill requirements of §137.19(e). If the holder of that certificate has designated a person under §137.19(e) to supervise his agricultural aircraft operations the demonstration must be made to the person so designated. However, a demonstration of the knowledge and skill requirement is not necessary for any pilot in command who—*

(1) Is, at the time of the filing of an application by an agricultural aircraft operator, working as a pilot in command for that operator; and

(2) Has a record of operation under that applicant that does not disclose any question regarding the safety of his flight operations or his competence in dispensing agricultural materials or chemicals.

Section 137.42 states that; *no person may operate an aircraft in operations required to be conducted under part 137 without a safety belt and shoulder harness properly secured about that person except that the shoulder harness need not be fastened if that person would be unable to perform required duties with the shoulder harness fastened*

Title 49 CFR part 175 sets forth specific standards and prohibitions concerning the transportation of hazardous materials in air commerce.[2] Section 175.9(b)(1) provides an exception to the applicability of part 175 for certificated agricultural aircraft operations. The relevant paragraph states as follows:

(b) Exceptions. This subchapter does not apply to the following materials used for special aircraft operations when applicable FAA operator requirements have been met, including training operator personnel on the proper handling and stowage of the hazardous materials carried:

> *(1) Hazardous materials loaded and carried in hoppers or tanks of aircraft certificated for use in aerial seeding, dusting spraying, fertilizing, crop improvement, or pest control, to be dispensed during such an operation*.

The petitioner supports its request with the following information:

The petitioner proposes to operate the DS-8 and DS-9 UAS to conduct commercial agricultural-related services as described in 14 CFR part 137. The petitioner states the DS-8 and DS-9 are capable of providing a wide array of essential agricultural spraying services, including dispensing of water, fertilizers, pesticides, and herbicides. The DS-8 and DS-9 can also be equipped with sensors and equipment to detect and monitor agricultural areas that require irrigation, fertilization, or other treatments.

Drone Seed states they will require its pilots to obtain an appropriate level of aeronautical experience, use a visual observer as described in § 107.33 who will observe the small UAS and surrounding airspace, and comply with provisions in its operations manual in order to achieve an equivalent level of safety. In addition, as described below, the small UAS petitioner seeks to use include various components to ensure safety in the operations.

The petitioner has provided the following information along with its petition to support its request for an exemption, which includes proprietary and/or confidential supporting documents:

1) Drone Seed training program.
2) Drone Seed operations manual.

The petition for exemption and documents listed above are hereinafter collectively referred to as the operating documents.

Discussion of Public Comments:

[2] Section 175.1 states that part 175 "prescribes requirements that apply to the transportation of hazardous materials in commerce aboard (including attached to or suspended from) aircraft." Further, part 175 "applies to the offering, acceptance, and transportation of hazardous materials in commerce by aircraft to, from, or within the United States, and to any aircraft of United States registry anywhere in air commerce."

A summary of the petition was published in the Federal Register on December 13, 2016 (81 FR 90045). There were no comments submitted to the docket.

The FAA's analysis is as follows:

The FAA has organized its analysis into five sections: (1) the small Unmanned Aircraft Systems (UAS), (2) the UAS remote pilot in command (PIC), (3) the UAS operating parameters, (4) certification requirements, and (5) the public interest.

Small Unmanned Aircraft Systems (UAS)

Manned aircraft conducting agricultural operations can weigh thousands of pounds and carry hundreds of gallons of fuel and payload. Both the DS-8 and DS-9 UAS weigh approximately 19 pounds each and carry no fuel. Both small UAS have a payload capacity of 24 pounds. Manned aircraft are operated by an onboard pilot and may carry other onboard crewmembers. The remote pilot in command, any person manipulating the controls, and all visual observers used for the operations under this exemption will be remotely located from the aircraft and will remain outside a designated safety zone when either small UAS is operating, ensuring that the pilot and visual observer are never so close to the small UAS to pose a hazard to the crew. The risk to an onboard pilot and crew during an incident or accident is eliminated with the use of a small UAS for the proposed operations.

Manned aircraft are at risk of fuel spillage and fire in the event of an incident or accident. Both the DS-8 and DS-9 carry no fuel and would impact the surface with less energy than a manned aircraft and therefore eliminates the potential risk and severity of fire following an incident or accident due to fuel or payload spillage. Typical missions for the DS-8 and DS-9 are agricultural spraying in flight 20 feet above ground level, while most other flights such as imaging are performed at less than 200 feet above ground level.

The petitioner’s small UAS have on-board safety features that ensure the small UAS can operate safely under both normal and contingency operating conditions. These features include automation to increase safety and reduce pilot workload. Some examples are the Return to Land (RTL) feature which will navigate the small UA to a certain RTL altitude, then transport the small UA to the location of takeoff, unless overridden with a new home location. RTL activates in the case of lost signal, low battery, and RTL can be activated by the pilot for reasons such as loss of visual line of sight or loss of control of the small UA. The DS-8 and DS-9 incorporate fly away prevention measures via mission planning software that permits creation of geofencing areas that prohibit flight paths over unwanted terrain. Drone Seed has added a feature in the case of a fly away violating the flight controller's failsafe’s and manual takeover control. In this instance, locating the small UA after its limited flight time would be important to verify the crash site has been appropriately managed, recover the small UA to preserve the natural environment, and review the software and hardware to determine the cause of the error. To enable this, the company has attached a beacon locator

that works in areas without cellular service and provides a heading and signal strength readout for the beacon's current location and distance, respectively.

Small UAS Remote Pilot in Command

All of the petitioner's small UAS pilots will hold a Remote Pilot in Command certificate pursuant to 14 CFR part 107. The petitioner has integrated safety elements into the operation of its small UAS including comprehensive pilot and visual observer (spotter) training and certification requirements. These requirements include: a comprehensive UAS training course which includes theory and practical components, a pilot theory exam, supervised flight training including agricultural spraying, completion of Drone Seed's training program requirements including examination, minimum flight time requirements, and demonstrated practical flying ability for the relevant tasks, and continued periodic training even after certification.

The DS-8 and DS-9 UAS both weigh less than 55 pounds and will be operated under 14 CFR part 107. Accordingly, the remote PIC must hold a remote pilot in command certificate with a small UAS rating in accordance with 14 CFR part 107. However, when conducting commercial agricultural aircraft operations, 14 CFR part 137 requires the PIC to hold at least a commercial pilot certificate, and meet all requirements of 14 CFR part 137 unless exempted. When a person flying the small UAS as permitted in accordance with § 107.12 (a)(2), he or she must be supervised by a remote pilot in command who meets the applicable knowledge and skills requirement for agricultural aircraft operations as outlined in 14 CFR part 137 unless exempted. A portion of the knowledge and skills requirements for manned aircraft operating under part 137 are not applicable for operation of small UAS conducting operations under part 137. For example, a pilot cannot demonstrate in a small UAS approaches to the working area, flare outs, and pullups and turnarounds, which are specifically required in § 137.19(e)(2)(ii), (iii), and (v). Therefore, the FAA finds that relief from the pertinent sections of part 137 is necessary to allow a person holding a remote PIC certificate to act as a remote PIC of agricultural aircraft operations which only utilizes small UAS. Prior to conducting agricultural operations under this exemption, the remote PIC must hold a valid remote PIC certificate[3] and comply with all portions of part 137 that this exemption does not address.

Small UAS Operating Parameters

The petitioner's operating documents describe operational procedures and limitations developed for the DS-8 and DS-9 to mitigate potential safety risk to persons and property.

[3] 14 CFR § 107.12. In addition, maintaining a remote PIC certificate requires fulfilling recency tests to assess aeronautical knowledge and refraining from operation if the remote PIC experiences a medical condition that inhibits safe operation of the small UAS. 14 CFR §§ 107.17 and 107.65.

The FAA considered these procedures and limitations in determining the proposed operations can be conducted safely.

The DS-8 and the DS-9 small UAS fit the definition outlined in the statute as a small unmanned aircraft[4] weighing less than 55 pounds, and will be operated under 14 CFR part 107. When conducting agricultural aircraft operations, both the DS-8 and DS-9 will be operated in accordance with both 14 CFR parts 107 and 137, as described in this exemption.

Section 107.36 prohibits carriage of hazardous materials on small UAS. As described above, 49 CFR § 171.8 defines "hazardous materials." For the proposed operations in which petitioner will engage, the pesticides and herbicides the small UAS will carry in accordance with this exemption may come within the purview of this definition of "hazardous materials."

Title 14 CFR part 137 allows dispensing of economic poisons pursuant to certain operating terms and limitations. Section 137.3 defines economic poison as (1) any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any insects, rodents, nematodes, fungi, weeds, and other forms of plant or animal life or viruses, except viruses on or in living man or other animals, which the Secretary of Agriculture shall declare to be a pest, and (2) any substance or mixture of substances intended for use as a plant regulator, defoliant or desiccant.

The FAA analyzed the applicable sections of 49 CFR part 175, *Carriage by Aircraft*, and 14 CFR § 107.36, *Carriage of Hazardous Material*, which forbids carriage of hazardous material as defined in 49 CFR § 171.8. The FAA recognizes the need to dispense economic poisons when conducting agricultural aircraft operations in accordance with 14 CFR part 137, as well as the economic and health benefits associated with disease vector control and agricultural and forestry applications. In addition, the FAA acknowledges the exception in 49 CFR § 175.9(b)(1), which excludes aircraft certificated for agricultural operations from the applicability of part 175, requires a certificated operation. In this regard, 14 CFR § 137.11 requires petitioner to obtain an agricultural aircraft operator certificate prior to conducting agricultural operations.[5] The FAA notes petitioner's intended use would involve far smaller quantities of economic poisons than currently allowed and carried under part 137. As a result, a limited grant of exemption from § 107.36 is consistent with 49 CFR § 175.9(b) as well as 14 CFR §§ 137.37 and 137.39 to permit the use of small UAS for agricultural operations under part 137. Such an operation is compatible with the FAA's position, as described in the Operation and Certification of Small Unmanned Aircraft final rule.[6]

Certification Requirements

[4] Pub. L. 112-95, sec. 331(6)
[5] Section 137.11(a) states, in part, "no person may conduct agricultural aircraft operations without, or in violation of, an agricultural aircraft operator certificate issued under this part."
[6] 81 FR 42064, 42195 (June 28, 2016).

The petitioner requested relief from the following sections of 14 CFR part 137, *Agricultural Aircraft Operations*: §§ 137.19(c); 137.19(d); 137.19(e)(2)(ii), (iii), and (v); 137.31(a); 137.31(b); 137.33(a); 137.33(b) and 137.42.

The FAA has determined that relief from § 137.19(c) is necessary to permit persons holding a remote PIC certificate with small UAS rating to act as PIC for commercial agricultural aircraft operations when utilizing a small UAS to conduct these operations. The commercial or airline transport certificate that § 137.19(c) requires is not a reasonable requirement for the agricultural operations petitioner proposes to conduct with small UAS. The basis for this relief is the same as discussed in the remote PIC section above. The remote PICs who will participate in the operations under this exemption must comply not only with the requirements of part 107, subpart C, but also with the additional knowledge and applicable skill requirements in 14 CFR § 137.19(e)(1) and (2)(i), (iv) and (vi). Further, in granting this exemption, the FAA will require compliance with the petitioner's training requirements in the operating documents. Lastly, because of the relief provided to § 137.19(c), we also provide relief to the pilot certificate requirements of § 137.41(c), *Personnel*.

Regarding the requested relief from §§ 137.19(d), *Certification requirements*, and 137.31(a), *Aircraft requirements*, the petitioner states it will ensure that both the DS-8 and DS-9 are in a condition for safe operation based upon a thorough pre-flight inspection and compliance with the operating documents.[7] As explained above, both the DS-8 and DS-9 weigh 19 pounds (43 pounds fully loaded) and do not require an airworthiness certificate to operate in accordance with 14 CFR part 107.

Regarding the requested relief from § 137.19(e)(2)(ii), (iii), and (v), *Certification requirements*, the FAA has determined that demonstration of the skills described in these paragraphs is not necessary because they are not compatible or applicable to the operation of either the DS-8 or DS-9 during agricultural aircraft operations as described in the petitioner's operating documents. The petitioner's training and certification program as described in its operating documents provides the remote PIC with the necessary skills to safely operate the DS-8 and DS-9. Granting relief from a demonstration of the skills described in § 137.19(e)(2)(ii), (iii), and (v) does not adversely impact safety, therefore relief is warranted. A remote PIC operating the small UAS under this exemption must demonstrate the skills listed at § 137.19(e)(2) as applicable, in accordance with the provisions of § 137.19(e), which requires such demonstration in order to obtain the agricultural aircraft operator certificate, unless otherwise exempted. If the operating procedures of either the DS-8 or DS-9 change to require the remote PIC to perform any of the skills described in § 137.19(e)(2)(ii), (iii), and (v), the petitioner must petition for amendment to this grant. Lastly, because of the relief provided to § 137.19(e)(2)(ii), (iii), and (v), the FAA also grants relief from those portions of the associated knowledge and skill test requirements of § 137.41(c), in addition to relief from the requirement in § 137.41(c) that the pilot hold a pilot certificate and rating.

[7] Section 107.15 prohibits operation of a small UAS unless it is in a condition for safe operation. Similarly, § 107.49 requires completion of preflight inspection prior to each flight.

Relief from § 137.31(b), *Aircraft requirements*, and § 137.42, *Fastening of safety belts and shoulder harnesses*, the FAA finds that an exemption from these requirements related to the installation and use of a shoulder harness and safety belt is warranted because the DS-8 or DS-9 are unmanned aircraft with no onboard pilot. These requirements are intended to ensure the safety of the onboard pilot during manned agricultural aircraft operations and thus, relief from §§ 137.31(b) and 137.42 does not adversely impact safety.

Relief from § 137.33(a), *Carrying of certificate*, which requires that a facsimile of the agricultural aircraft operator certificate be carried on the aircraft, the FAA finds that relief is necessary and warranted. However, petitioner must comply with § 107.13, which references § 91.203 and therefore requires registration of all small UAS petitioner will use; in accordance with § 91.203, petitioner must retain all certificates of registration. These documents must be kept in a location accessible to the remote PIC. Therefore, a facsimile of the agricultural aircraft operator certificate must also be kept in a location accessible to the remote PIC.

Relief from § 137.33(b), *Carrying of certificate*, which requires the registration and airworthiness certificate (if not carried in the aircraft) be kept available for inspection at the base of dispensing operation is conducted. The FAA finds relief is necessary for the airworthiness certificate, but not for the registration certificate. The operator must comply with § 107.13.

Public Interest

The FAA finds that a grant of exemption is in the public interest. The petitioner states that the DS-8 and DS-9 can provide many agricultural services more efficiently, economically, and safely than other air or ground-based methods. The enhanced safety achieved using a UAS with the specifications described by the petitioner and carrying no passengers or crew, rather than a manned aircraft of significantly greater proportions gives the FAA good cause to find that the UAS operation enabled by this exemption is in the public interest. The FAA finds that granting this exemption would also serve in the public interest because it facilitates the integration of small UAS into the national airspace system (NAS).

The table below summarizes the FAA's determinations regarding regulatory relief:

Relief considered (14 CFR)	**FAA determination**
107.36	Relief granted with conditions and limitations
137.19(c)	Relief granted with conditions and limitations
137.19(d)	Relief granted with conditions and limitations
137.19(e)(2)(ii), (iii), and (v)	Relief granted with conditions and limitations
137.31(a)	Relief granted with conditions and limitations

Relief considered (14 CFR)	FAA determination
137.31(b)	Relief granted
137.33(a)	Relief granted with conditions and limitations
137.33(b)	Relief granted with conditions and limitations
137.41(c)	Relief granted with conditions and limitations
137.42	Relief granted with conditions and limitations

The FAA's Decision

In consideration of the foregoing, I find that a grant of exemption is in the public interest. Therefore, pursuant to the authority contained in 49 U.S.C. §§ 106(f), 40113, and 44701, delegated to me by the Administrator, Drone Seed Co. is granted an exemption from 14 CFR §§ 107.36; 137.19(c) and (d); 137.19(e)(2)(ii), (iii), and (v); 137.31(a) and (b); 137.33(a) and (b); 137.41(c), and 137.42 to the extent necessary to allow the petitioner to operate the DS-8 and DS-9 UAS for the purpose of agricultural-related services operations. This exemption is subject to the conditions and limitations listed below.

Conditions and Limitations

In this grant of exemption, Drone Seed Co. is hereafter referred to as the operator.

Failure to comply with any of the conditions and limitations of this grant of exemption will be grounds for the immediate suspension or rescission of this exemption.

1. Operations authorized by this grant of exemption are limited to any model small UAS with a maximum take-off weight of less than 55 pounds.

2. When adding any small UAS or new small UAS models that will be operated under this exemption, the operator must notify the Flight Standards District Office (FSDO) which holds their operating certificate. Additionally, operations authorized by this exemption are limited to the small UAS listed on the operator's part 137 Letter of Authorization (LOA).

3. This exemption and all documents needed to operate the small UAS and conduct its operations in accordance with the conditions and limitations stated in this grant of exemption, are hereinafter referred to as the operating documents. The operating documents must be accessible during UAS operations and made available to the Administrator upon request. If a discrepancy exists between the Conditions and Limitations in this exemption, any applicable FAA issued waivers/authorizations, and the procedures outlined in the operating documents, the most restrictive conditions, limitations, provisions, or procedures apply and must be followed. The operator may update or revise its operating documents. It is the operator's responsibility to track such revisions and present updated and revised documents to the Administrator or any law enforcement official upon request. The operator must also present updated and revised

documents if it petitions for extension or amendment to this grant of exemption. If the operator determines that any update or revision would affect the basis upon which the FAA granted this exemption, then the operator must petition for an amendment to its grant of exemption. The General Aviation and Commercial Division, (AFS-800) may be contacted if questions arise regarding updates or revisions to the operating documents.

4. Any small UAS used by the operator that has undergone maintenance or alterations that affect the small UAS operation or flight characteristics, e.g. replacement of a flight critical component, must undergo a functional test flight prior to conducting further operations under this exemption. Functional test flights may only be conducted by a remote PIC with a Visual Observer (VO) and other personnel necessary to conduct the functional flight test (such as a mechanic or technician). The functional test flight must be conducted in such a manner so as to not pose an undue hazard to persons and property.

5. The operator must follow the UAS manufacturer's maintenance, overhaul, replacement, inspection, and life limit requirements for the aircraft and aircraft components. Each UAS operated under this exemption must comply with all manufacturer safety bulletins.

6. *PIC qualifications:* The remote PIC must demonstrate the ability to safely operate the small UAS in a manner consistent with how it will be operated under this exemption, including the applicable knowledge and skills requirements for agricultural aircraft operations outlined in 14 CFR part 137, evasive and emergency maneuvers, and maintaining appropriate distances from persons, vessels, vehicles and structures before operating non-training, proficiency, or experience-building flights under this exemption.

7. For small UAS operations where Global Positioning System (GPS) signal is necessary to safely operate the small UA, the remote PIC must immediately recover/land the small UA upon loss of GPS signal.

8. If the remote PIC loses command or control link with the small UA, the small UA must follow a pre-determined route to either reestablish link or immediately recover or land.

9. The remote PIC must abort the flight operation if unpredicted circumstances or emergencies that could potentially degrade the safety of persons or property arise. The remote PIC must terminate flight operations without causing undue hazard to persons or property in the air or on the ground. Documents the operator must retain under §§ 107.13, 137.33, and in accordance with this exemption (including but not limited to: operators exemption, any waiver held, a facsimile of the agricultural aircraft operator certificate, training manual, operations manual, and registration certificate) must be available to the remote PIC at the Ground Control Station of the small UAS at all times the aircraft are operating. These documents must be made available to the Administrator or any law enforcement official upon request. Airworthiness certificates applicable to the small UAS to which this exemption applies are not required for compliance with this condition.

10. The relief granted from § 107.36 is limited to the use of any economic poison as defined in § 137.3.

11. The remote PIC may operation the small UAS from a moving device or vehicle as described in § 107.25, which permits such operation in sparsely populated areas, provided the small UAS do not transport property for compensation or hire. If conducting agricultural aircraft operations in accordance with § 107.25, the remote PIC must satisfactorily demonstrate the applicable knowledge and skills requirements of § 137.19 in the type of device or vehicle to be used in agricultural aircraft operations.

12. This exemption is not valid for operations outside of the United States.

This exemption does not obviate the applicability of, or in any manner alter, the provisions of parts 107 and 137 that are not the subject of this exemption. In this regard, petitioner must adhere to the terms of any waiver the FAA has issued to petitioner under part 107, subpart D that is associated with the agricultural operations that are the subject of this exemption. In addition, petitioner must comply with all limitations and provisions of petitioner's agricultural aircraft operator certificate, which petitioner must obtain prior to conducting agricultural operations in accordance with § 137.11.

This exemption terminates on March 31, 2019, unless sooner superseded or rescinded.

Issued in Washington, DC, on March 17, 2017.

/s/
John Barbagallo
Deputy Director, Flight Standards Service